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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,010	10/15/2001	Yoshio Uchida	Q66667	9598

7590

09/29/2004

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EXAMINER
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BOS, STEVEN J

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/976,010

Applicant(s)

UCHIDA, YOSHIO

Examiner

Steven Bos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-12 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 13-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 2, 2004 has been entered.

In claim 10, "of note more than" is awkward and it appears that – of not more than – was intended.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1,2,3,10,11,12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, "in the substantial absence of hydrogen halide gas" is indefinite as to how much is considered to be a substantial absence of hydrogen halide gas, nor would one of ordinary skill in the art know how much this would be nor does the instant specification pg. 8 define how much this would be because it states that it means "normally not more than about 0.1 vol%" which is not a specific definition.

In claims 1,10, "calcining the metal salts or the complex metal salt in the presence of a hydrogen halide gas" is indefinite as to how this could occur after the

heating step since the previous heating step transforms the salts to a complex metal oxide so that there would then be no salts left to calcine. It appears that it is the complex metal oxide which is calcined in the presence of a hydrogen halide gas.

In claim 2, "wherein a concentration of the hydrogen halide gas after heating is from about 0.1 vol% to about 10 vol%" is indefinite since in claim 1 the heating takes place in the substantial absence of hydrogen halide gas, which according to instant pg. 8 means that it is not more than about 0.1 vol%; it is unclear how the concentration of the hydrogen halide gas could then be up to about 10 vol% as recited in claim 2.

In claims 3, 12, "at least one metal salt is a non metal halide salt" is indefinite since a metal salt inherently would contain at least one metal, therefore to then recite it as a "non metal halide salt" is contradictory.

In claim 5, "each non metal halide salt is made of the same metal as one of the metal halide salts" is indefinite and contradictory as to how the non metal halide salt could be made of a metal.

In claim 11, "wherein a concentration of the hydrogen halide gas after heating is from about 0.1 vol% to about 10 vol%" is indefinite since in claim 10 the heating takes place at a hydrogen halide gas concentration of not more than about 0.1 vol%; it is unclear how the concentration of the hydrogen halide gas could then be up to about 10 vol% as recited in claim 11.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3,6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saegusa '505.

Saegusa suggests the instantly claimed process but may differ in that heating the salt(s) in the substantial absence of hydrogen halide gas to a temperature at which transition to a complex metal oxide occurs is not stated. See cols. 3-5,7, examples 1-5.

However Saegusa teaches calcining, ie. heating, at the same temperatures instantly claimed to form the same perovskite titanates, ie. complex metal oxide, instantly claimed thus the instantly claimed heating to the complex metal oxide transition temperature would appear to be suggested. Instant pg. 8 states that "substantial absence" means that the gas is "normally not more than about 0.1 vol%" and that the gas is at a concentration such as not to affect the object of the present invention. With regard to the latter, Saegusa forms complex metal oxides which is the same object as the instant claims. With regard to the former, "normally not more than about 0.1 vol%"

does not specifically define the concentration as "not more than about 0.1 vol%" therefore "substantial absence of hydrogen halide gas" is broad language that includes the concentrations taught by Saegusa.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the references because overlapping ranges have been held to be a prima facie case of obviousness, *In re Malagari*, 182 USPQ 549.

Claims 1-3,7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mohri '480.

Mohri suggests the instantly claimed process but may differ in that heating the salt(s) in the substantial absence of hydrogen halide gas to a temperature at which transition to a complex metal oxide occurs is not stated. See col. 4.6 and the claims.

However Mohri teaches calcining, ie. heating, at the same temperatures instantly claimed to form the same perovskite titanates, ie. complex metal oxide, instantly claimed thus the instantly claimed heating to the complex metal oxide transition temperature would appear to be suggested. Instant pg. 8 states that "substantial absence" means that the gas is "normally not more than about 0.1 vol%" and that the gas is at a concentration such as not to affect the object of the present invention. With regard to the latter, Mohri forms complex metal oxides which is the same object as the instant claims. With regard to the former, "normally not more than about 0.1 vol%" does not specifically define the concentration as "not more than about 0.1 vol%" therefore

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"substantial absence of hydrogen halide gas" is broad language that includes the concentrations taught by Mohri.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the references because overlapping ranges have been held to be a prima facie case of obviousness, *In re Malagari*, 182 USPQ 549.

Claims 1,7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1065693.

EP '693 suggests the instantly claimed process but may differ in that heating the salt(s) in the substantial absence of hydrogen halide gas to a temperature at which transition to a complex metal oxide occurs is not stated. See paragraphs 16-22, example 1.

However EP '693 teaches calcining, ie. heating, at the same temperatures instantly claimed to form the same perovskite titanates, ie. complex metal oxide, instantly claimed thus the instantly claimed heating to the complex metal oxide transition temperature would appear to be suggested. Instant pg. 8 states that "substantial absence" means that the gas is "normally not more than about 0.1 vol%" and that the gas is at a concentration such as not to affect the object of the present invention. With regard to the latter, EP '693 forms complex metal oxides which is the same object as the instant claims. With regard to the former, "normally not more than about 0.1 vol%" does not specifically define the concentration as "not more than about 0.1 vol%"

therefore "substantial absence of hydrogen halide gas" is broad language that includes the concentrations taught by EP '693.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the references because overlapping ranges have been held to be a prima facie case of obviousness, *In re Malagari*, 182 USPQ 549.

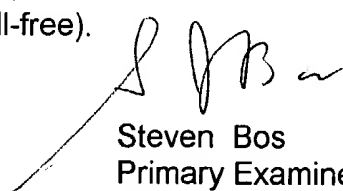
Applicant's arguments filed September 2, 2004 have been fully considered but they are not persuasive. Applicant's arguments have been addressed above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Bos whose telephone number is 571-272-1350. The examiner can normally be reached on M-F, 8AM-6PM but is on increased flexitime sch.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven Bos  
Primary Examiner  
Art Unit 1754

sjb